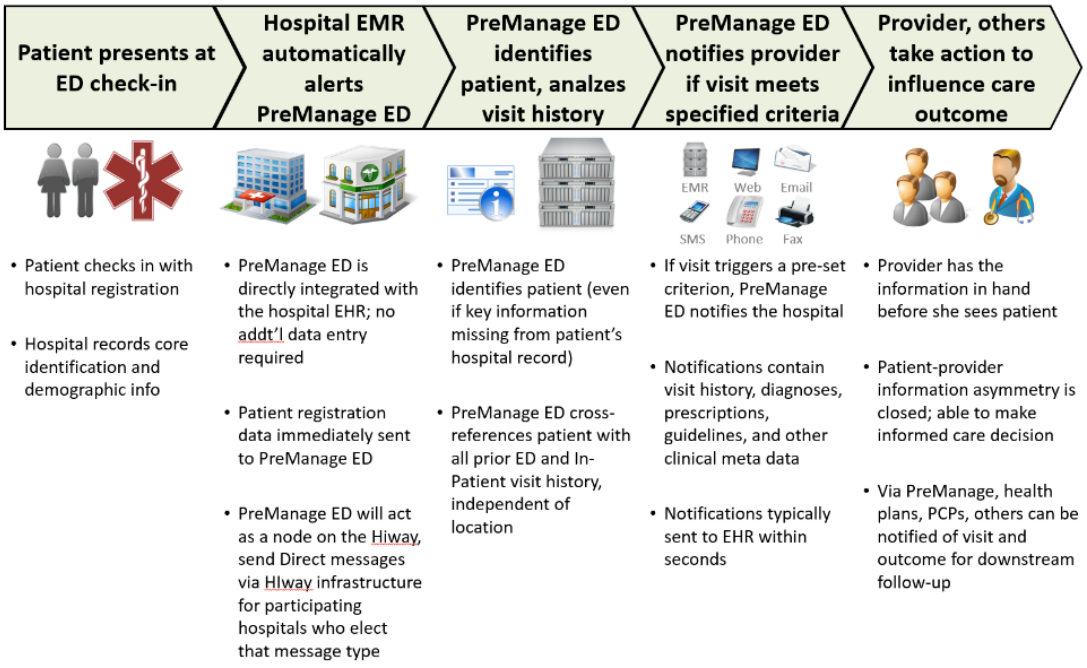
# PreManage: Eliminate Avoidable Risk

## Description

*PreManage* is a collaborative care management platform designed to increase the effectiveness of existing care management resources, reduce medically-unnecessary ED readmissions, and improve quality of care. By facilitating access to a common living plan of care with real-time notifications, *PreManage* enables a community of physicians, nurses, social workers, and case managers to coordinate their efforts around a common pool of high-cost, high-needs complex patients who may frequent multiple health systems but whose needs remain unmet absent clinical intervention from multiple points of care across the healthcare continuum. Through community collaboration, these patients can re-direct to more appropriate primary- and home-based care settings as providers work from the same care playbook.

## Example Workflow

*PreManage* takes an ADT feed of all ED and IP encounters over secure VPN from each hospital within a given geography. It pools this information within a secure data repository from which it can construct a complete longitudinal patient history and against which it can run real-time risk analytics as a high-risk patient presents at a given point of care. *PreManage* may also pull in limited additional high-value data points such as POLST advanced directives, plan claims attributes, or PDMP filled prescription history information to augment the lightweight, but comprehensive, patient history for purposes of aiding risk identification and community care planning.




*PreManage* pushes targeted notifications and patient-specific care plans on complex patients directly into the ED tracking board of the hospital's EHR or other appropriate communication modality. Hospital ED staff (physicians, nurses, social workers, case managers) can then interact with the alerts, draft or update care plans, etc. either within the EHR or on the secure *PreManage* website (generally via single sign-on with the hospital). This same information is made available to other providers (EDs, PCPs, home health providers, plan case managers, etc.) in the community who also maintain a verified active TPO relationship with the patient; as these individuals subsequently interact with the patient, they are made aware of the latest plan of care and then able to collaborate on the same living, community-wide patient care plan such that each provider is working from the latest plan of care. Should the patient present back at the originating hospital, providers there are also made aware of the latest plan of care. Only individuals with a verified active TPO relationship to the patient can view or edit the patient record within *PreManage*.

In addition, *PreManage* enables providers and plans to increase the impact of their existing case management resources by automatically aggregating a full census of all ED and in-patient admits, transfers, observations, and discharges, identifying from those which of its members represent medically-unnecessary risk of readmission, and notifying the appropriate case manager, provider, health navigator, home health provider, etc. so that she can immediately mitigate the risk.

# PreManage: Sample ED Notification

## PreManage ED ALERT 04/13/2015 14:18 PM Mouse, Mickey ( DOB: 10/01/1928 )

This patient has registered at the Ford Medical Center Emergency Department. You are being notified because this patient has recommended Care Guidelines. For more information visit: Please login to EDIE and search for this patient by name.

### Care Providers

| Provider | Type | Phone | Fax | Service Dates |
|---|---|---|---|---|
| John K SMITH MD | | (801) 856-8575 | (855) 343-7671 | Current |

### ED Care Guidelines from Ford Medical Center

Last Updated: Wed Feb 17 10:35:40 MDT 2015

**Care Recommendation:**

**Pain contract and scheduled substance prescribing:** Patient had a controlled substance agreement with Dr. Smith but Dr. Jamison. **Dr. Jamison prescribes regular 1 mg Clonazepam, 1 mg Lorazepam, and hydrocodone as needed.** Please do not use controlled substances in the ER unless there are new objective findings.

**Additional Information:**

1. No opiates in the ED for chronic pain or opiate withdrawal. No opiate or benzodiazepine prescriptions at discharge.
2. Strongly encourage or assist Pt in making a PCP appointment prior to d/c.

These are guidelines and the provider should exercise clinical judgment when providing care.

### Care Histories

**Behavioral**

03/4/2015 Ford Medical Center

- **AXIS I:** Bipolar disorder, type I, hypomanic.
- History of PTSD
- **AXIS II:** Borderline personality features.

**Radiation History**

- 15 CT scans on record from 2007 through 2/6/15, as well as numerous radiology exams.

### Security Events

| Date | Location | Type | Specifics |
|---|---|---|---|
| 11/03/2014 | Ford Medical Center | Verbal | • Patient was verbally abusive towards care providers, staff or patient. |

| Security Events (18 Mo.) | Count |
|---|---|
| Verbal | 1 |
| **Total** | **1** |

### Washington PDMP Report

Rx Risk Assessment: **High**

**Rx Details (6 Mo.)**

| Fill Date | Drug Description | Qty. | Prescriber | CS | MED |
|---|---|---|---|---|---|
| 2015-02-18 | HYDROCODONE-ACETAMINOPHEN 7.5-325 | 30 | John Smith, MD | 3 | 60.0 |
| 2015-01-31 | HYDROCODONE-ACETAMINOPHEN 7.5-325 | 30 | John Smith, MD | 3 | 60.0 |
| 2015-01-10 | HYDROCODONE-ACETAMINOPHEN 7.5-325 | 15 | John Smith, MD | 3 | 60.0 |
| 2014-12-18 | HYDROCODONE-ACETAMINOPHEN 7.5-325 | 30 | John Smith, MD | 3 | 60.0 |
| 2014-11-29 | HYDROCODONE-ACETAMINOPHEN 5.0-250 | 30 | John Smith, MD | 3 | 60.0 |
| 2014-10-31 | HYDROCODONE-ACETAMINOPHEN 5.0-250 | 30 | John Smith, MD | 3 | 60.0 |
| 2014-10-02 | HYDROCODONE-ACETAMINOPHEN 5.0-250 | 30 | John Smith, MD | 3 | 60.0 |

| Rx Summary (12 Mo.) | Count |
|---|---|
| CS II-V Rx | 0 |
| CS-II Rx | 0 |
| Quantity Dispensed | 480 |
| Unique Prescribers | 2 |
| Unique Pharmacies | 1 |
| Benzos | 1 |
| Opioids | 20 |
| Long Acting Opioids | 2 |

### Recent Visit Summary

| Visit Date | Location | Type | Diagnoses |
|---|---|---|---|
| 03/24/2015 | Ford Medical Center | Inpatient | - Fever, unspecified |
| 02/21/2015 | Ford Medical Center | Surgery | - Malignant neoplasm of liver, secondary |

| Visit Date | Location | Type | Diagnoses |
|---|---|---|---|
| 04/13/2015 | Ford Medical Center | Emergency | - Headache<br>- Cough |
| 03/30/2015 | Murray Medical Center | Emergency | - Fever, unspecified |
| 03/18/2015 | Ford Medical Center | Emergency | - Long-term (current) use of other medications |
| 03/03/2015 | Providence Centralia Hospital | Emergency | - Other chronic bronchitis<br>- Fever, unspecified |

| E.D. Visit Count (1 Yr.) | Visits |
|---|---|
| Providence Centralia Hospital | 4 |
| Ford Medical Center | 37 |
| Murray Medical Center | 6 |
| Total | **47** |

Note: Visits indicate total known visits.

Note: Visits indicate total known visits.

# PreManage: FAQs (1 of 2)

## What is *PreManage* (also called Edie / PreManage in other states)?

A collaborative care management tool designed to increase the effectiveness of existing care management resources, reduce medically-unnecessary ED readmissions, and improve quality of care through consistent delivery of care.

## How does *PreManage* work?

- **Integrated with Clinical Workflows**. *PreManage* integrates within existing clinical workflows—generally right into the EHR ED tracker board—pushing high-value, actionable insights to ED providers when a high-risk patient presents.

- **Real-Time, Proactive Notifications**. *PreManage* automatically sends notifications in real-time as a patient presents at the ED to give providers immediate perspective on the patient without their having to search through voluminous clinical records or visit separate portals.

- **Content Specific to the Provider's Needs**. *PreManage* notifications deliver a synthesized amount of insight—including prior ED and IP visit history, community-sourced care plans, and other valuable clinical and social history information – that can quickly be consumed in the rapid pace of ED providers.

- **Collaborative Care Guidelines.** *PreManage* allows on-the-ground case managers, social workers, and providers to collaborate on a single, living care guideline ensuring the most current and high-value information is available to all authorized providers, and eliminating the risk of a care plan becoming static and buried in a silo'd IT system.

## What impact does *PreManage* have?

- **Enhanced Case Management Effectiveness and Efficiency**. Case managers and social workers—in the ED or elsewhere—spend a significant amount of time completing patient-specific work-ups and documenting accordingly. Unfortunately, these work-ups are often documented in isolation and available only to providers within the same facility. Not only may other providers be unaware of the plan of care, but they may also be unaware that a patient has already received case management assistance from another facility and therefore duplicate efforts with additional plans of care, some of which may even unwittingly contradict the original plan of care. Further, case managers have no ability to track what happens to the patient after his visit to the ED. As a result, case managers are constantly occupied and potentially duplicating efforts for patients who have already received case management from multiple other providers, while yet other patients who need assistance receive none. *PreManage* solves this by unifying and amplifying the voice of all case managers.

  *PreManage* aggregates condensed versions of individual facility plans of care (referred to as care guidelines) and automatically pushes them to the appropriate ED each time the patient presents, thus ensuring that each set of providers—physicians, nurses, case managers, and social workers—are aware of, and able to operate from, a common plan of care shared across facilities. These plans of care are coupled with additional high-value content, including references to other providers involved in the plan of care, prior patient complaints and diagnoses, etc. While individual providers may, of course, choose to follow their own plan of care, at least they will be aware of which other providers are involved in the patient's care and what they are recommending, and then be able to avoid duplicative efforts, instead focusing on additional other patients whose needs may otherwise go unmet due to resource constraints. Further, PreManage enables case managers to understand where else a patient may subsequently visit so that they can follow-up as appropriate to ensure the patient receives the care she needs. The end result is a group of seemingly disparate providers collaborating as one team.

- **Improved Patient Outcomes**. By giving clinicians visibility into prior visit and prescription history, as well as patient-specific plans of care, in real-time, *PreManage* enables providers to deliver higher quality and better coordinated care.

- **Reductions in Inappropriate ED Utilization**. ED clinicians and case managers can identify high utilizing patients and connect with their other treating providers to help meet underlying patient needs in more appropriate care settings. In Washington State, *PreManage* enabled the "ER for Emergencies" initiative, which resulted in state-wide savings of over $33 million to the state Medicaid program in the first year.

# PreManage: FAQs (2 of 2)

- **More Efficient Use of ED Resources**. *PreManage* delivers critical information to ED providers proactively in an easily digestible format so they don't have to waste time searching for it. This allows ED resources to be redirected to the truly urgent cases for which the ED is designed.

## How does *PreManage* integrate with existing IT Systems?

- **High Value Data Integration**: *PreManage* ingests a thin slice of ADT-based real-time clinical data spanning all visit encounters via secure data feed. *PreManage* is able to integrate other data types as needed, such as POLST advanced directives, plan claims attributes, or PDMP filled prescription history information. *PreManage* applies analytics and risk identification to this data to enable real-time identification for every individual entering a provider facility. *PreManage* identifies highest risk individuals in real time based on patterns of patient-specific variables including visit frequency, prescriptions, security, readmissions, and diagnoses x demographics.

- **Workflow Integration**: *PreManage* pushes real-time alerts directly into your hospital's EHR, which provide a synthesized amount of clinical information, without requiring providers to log into a separate system, look up the patient, and sift through full clinical records in search of select high-value information relevant to their particular ED interaction with the patient; this enables providers to make rapid medical decisions within the ED.

- **Living Care Guidelines**: *PreManage* maintains a living care guideline, specific to an individual patient, as authored by potentially multiple prior treating providers; this enables providers to coordinate their care decisions, proactively understand what happens to a patient both before and after he/she enters or leaves an ED, and contribute incremental information to the plan of care rather than to a static document which lives within the provider's EHR alone.

## Where is *PreManage* in use today?

*PreManage* is currently deployed in 100% of the Hospitals in the states of Oregon and Washington. *PreManage* is also in use by the six largest health systems in California, including Sutter, Kaiser Permanente, Molina, among others. Additionally, *PreManage* is used by over a dozen of the nation's largest risk-bearing entities as a key tool for helping to coordinate care for their most complex populations. *PreManage* is currently being implemented across many states throughout the U.S.

## What results has *PreManage* achieved?

- *PreManage* has been a critical tool enabling the State of Washington to achieve:
  - 9.9% reduction in ED visits
  - 27% reduction in opioid overdose deaths from 2008 to 2013
  - 24% decrease in ED visits resulting in an Opioid prescription
  - 27% decrease in the number of ED high utilizers with >1 prescriber

- The Kaiser Permanente North West ("KP" or "KP NW") case management team, based in Portland, Oregon, launched a specific case management effort in late 2014 with the intent to more effectively manage the care of a 500-patient cohort of emergency department "high utilizers." Shortly after launching the effort, KP NW case management began using the *PreManage* tool to actively track the utilization behavior of this patient cohort as well as to promote collaboration of care across both KP and non-KP hospitals by ensuring any interacting provider would be aware of a common "plan of care" put in place by the KP case management team. As a result of these efforts, Kaiser Pacific Northwest has observed a 55-60% decrease in ED utilization and a nearly 40% decrease in in-patient utilization for this cohort of complex patients managed through the KP case management team.



CollectiveMedical TECHNOLOGIES